REMARKS

Claims 1-8, 10-32 and 40-43 are pending in the subject application, claims 9 and 33-39 having been canceled without prejudice. Claims 1, 15, 20-22, 31 and 40 are objected to by the Examiner. Claims 1-14 are rejected under 35 U.S.C. §112. Claims 1-8, 10-32 and 40-43 are rejected under 35 U.S.C. §103(a) as unpatentable over Williams *et al.* (U.S. Patent No. 4,593,464) in view of Hosler, Sr. (U.S. Patent No. 5,062,808). By this amendment, claims 1, 3, 4, 6, 15, 20, 21, and 31 are amended, and claim 15a is formally canceled.

Applicant requests clarification on the status of the drawings. On the cover page of the Office Action Summary, the Examiner indicates that the drawings filed on November 21, 2002, are objected to by the Examiner and the drawings filed on December 23, 2002, are disapproved by the Examiner. On Page 2 of the Office Action, under DETAILED ACTION/Drawings, the examiner indicates "The corrected or substitute drawings were received on 12/23/02. These drawings are acceptable." Since there is no further comment regarding the drawings, applicant assumes that the drawings are acceptable. If this assumption is not correct, applicant requests the Examiner to indicate with specificity any reasons for disapproval so that timely corrections can be implemented.

The present invention is directed to a triaxial pin contact that includes an electrical contact having a flexible connection, such as flexible fingers, that are prevented from being deformed and bent inwards by a second interface, typically an insulator, assembled so as to prevent the flexible fingers from probe damage or oversized pin damage. The flexible fingers are assembled so as to be interference fit against the insulator, which also includes a front end surface that protects the flexible fingers from being bent or distorted by means of a mating connector or other object from accessing the exterior side of the flexible fingers.

Claims 1, 15, 20-22, 31 and 40 are objected to by the Examiner.

Claims 1, 15, 20, 21, 31 and 40 have been amended to overcome the Examiner's objections. Claims 1, 15 and 40 have been amended, as suggested by the Examiner and claims 20-21 have been amended to remove reference to the second interface.

Claims 1-14 are rejected under 35 U.S.C. §112.

The Examiner states:

> The scope of claims 1, 3, 5 and 6 is indefinite because there is an inconsistency within the claims. Claim 1, initially / from which they depend, indicates that the subcombination, a contact (with a second interface that prevents distortion of a flexible contact medium), is being claimed. However, later claims 3, 5 and 6 contain positive limitations directed toward the flexible contact medium, suggesting that applicant intends to claim the combination of the connector and the flexible contact medium as part of the claimed invention, the use of alternative language is suggested. As an example, in line 3, prior to "wherein" insert -- a flexible contact medium on the electrical contact--, and in line 4, change "a flexible" to "the flexible".

Claims 1, 3 and 6 have been amended in a manner believed to overcome the rejection. Claim 9 has been canceled. Claim 5, as originally filed, contains no limitations to the connector. The intent is to claim the flexible contact without a limitation to the connector. Applicant states, however, the use of the contact is with a connector.

Claims 1-8, 10-32 and 40-43 are rejected under 35 U.S.C. §103(a) as being unpatentable over Williams *et al.* in view of Hosler, Sr. The Examiner states:

> Williams discloses an electrical contact comprising: a rear end having a first interface (right side of Fig. 5); and a front end having a second interface (left side of Fig.5), wherein the second interface prevents a flexible contact medium (20) from being distorted by a connector.
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> Williams also discloses the first interface connecting to a connector medium; a front end of the flexible contact medium being isolated by a connector flange (2) on the second interface; the connector flange being part of a first insulator; the front end of the flexible contact medium being tapered toward an outer boundary of the second interface; the front end of the flexible contact medium is isolated from the connector by a curve rim (2) on the second interface; the second interface permits connection of the connector with a rear portion of the flexible contact medium; the second guides the connector; the electrical contact being a male triaxial pin and the connector being a triaxial connector; the front

and rear ends being tubular; and the first interface having one or more connection pins.

Specifically in regard to claim 15, Williams discloses an electrical contact comprising: an intermediate contact (20) having a flexible connection medium; an outer contact (10) surrounding the intermediate contact; a first insulator (2) surrounding the intermediate contact and the flexible connection medium, wherein the first insulator provides electrical isolation of the intermediate contact and the outer contact, and wherein the first insulator has a front face that protects the flexible connection medium from being distorted by an electrical connector, and wherein the outer contact surrounds the first insulator; and a center contact (30) surrounded by the intermediate contact. Williams also discloses a second insulator (3) located between the intermediate contact and the center contact; a flange (front of 2)) on the front face, wherein the flange isolates a front portion of the flexible connection medium from the mating connector; a ledge (front of 2) on the front face, wherein a front portion of the flexible connection medium having a taper that guides the mating connector; the front portion of the flexible connection medium tapered toward the outer boundary; a third insulator (back end of 3) surrounding the center contact; the center contact connected to a center pin that extends from the rear side of the outer contact; the outer contact connected to an outer pin that extends from a rear side and is within a boundary of the outer contact.

Applicant respectfully traverses this rejection. As currently understood, Williams *et al.* is directed to a triaxial electrical connector that provides a reliable electrical connection between terminal portion and mating portion of a contact. It accomplishes this in a tubular conductor by including an annular groove in a forward end portion opposite spring fingers. While Williams *et al.* does disclose an electrical contact having a rear end with a first interface and a front end having a second interface, there is no teaching or suggestion in Williams *et al.* that the second interface prevents the flexible contact medium from being distorted by a connector. The Examiner's basis for this is the drawings, as there is no such teaching or suggestion for this contention in the specification. Applicant respectfully submits that the drawing can easily be interpreted to teach away from applicant's invention, as there clearly is a gap in the connector of Williams' *et al.* between the spring fingers and the tubular insulators. For the record, applicant notes that there is an inconsistency in the drawings of Williams *et al.*, in that in Fig. 4, the flexible connector is clearly identified as second tubular conductor 20

and also in the specification at col. 2, lines 33-34. In Fig. 5, reference numeral 20 erroneously points to the gap between the second tubular conductor and second tubular insulator 3; however, the specification in describing Fig. 5 at col. 2, lines 39-52 clearly identifies the second tubular conductor as 20. The spring fingers at the front end (left side of Fig. 5) do not include any structure to prevent inward bending by any part that may enter this gap and force the fingers inward. The Examiner acknowledges this deficiency in the seventh paragraph of his rejection under 35 U.S.C.§103(a), discussed below. As set forth in MPEP §2143.03 entitled "All Claim Limitations Must Be Taught or Suggested."

> To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, per MPEP §2125, the drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art. *See In re Aslanian*, 590 F.2d 911, 200 USPQ 500 (CCPA 1979).

With regard to the second paragraph (above) of the rejection, reference numeral 2 of Williams *et al.* is identified as an insulator (*see* Williams at col. 2, lines 36-37) that has an end, but there is no disclosure in either the specification or drawings that the insulator includes a flange. As noted above, there is a gap between insulator 2 and tubular conductor 20, and there is no teaching or suggestion in Williams *et al.* to prevent the conductor from being bent inward by something entering the gap. Furthermore, there is no taper toward an outer boundary shown or discussed in Williams *et al.* At best, Williams *et al.* discloses an inward bending radius at the front end of the tubular conductor 20, and as is recognized by one skilled in the art, a localized radius is not the same or even the equivalent of the taper claimed by applicant. The Examiner's proposed

construction of Williams *et al.*, which is unsupported by the drawings or the specification, appears to be an attempt to distort the teachings of Williams *et al.* in order to read on applicant's claims. This is an improper use of hindsight reconstruction. *See* MPEP §2142.

With regard to claim 15, the applicant does not agree with the Examiner's contention that Williams discloses an insulator that includes a front face that protects the flexible connection medium 20 from being distorted or bent toward the center. Further, Williams does not disclose a flange that isolates the front portion of the flexible connection medium. The "flange" that the examiner claims to be present is clearly just the end of the insulator. The Examiner acknowledges this deficiency in the seventh paragraph of his rejection under 35 U.S.C.§103(a). Furthermore, an examination of Fig. 5 clearly shows that the front portion of the flexible medium is not isolated by the end of the insulator 2. As discussed above, there also is no taper disclosed in Williams *et al.* All of the above-mentioned reasons from the MPEP are equally applicable here as to why this proposed construction is improper.

The Examiner further states:

> Specifically, concerning claim 31, Williams teaches an electrical connector comprising: a shell (1); an electrical contact (10, 20, 30) located within the housing, comprising: a rear end having a first interface, and a front end having a second interface to a connector, wherein the second interface prevents the electrical contact from being distorted by the connector; and at least one other electrical contact located within the shell; the shell is substantially circular and surrounds the electrical contacts.

Applicant respectfully traverses this rejection. As noted above, Williams does not teach a front end with a second interface that prevents the electrical contact from being distorted, such as from being bent inward. The Examiner acknowledges this deficiency in the below quoted seventh paragraph of his rejection under 35 U.S.C.§103(a). This is discussed above.

The Examiner further states:

> Regarding claims 25, 27, 28 and 30 please note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentable distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, as in the present situation, then it meets the claim. *See In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).
>
> Williams discloses substantially the claimed invention except for prevention of the flexible contact medium from being bent toward the center. Hosler teaches a triaxial contact (Fig. 3) with a second interface (right side/138) with a flange/curved rim that prevents the flexible medium (112/124) from being bent toward the center of the electrical contact to protect the flexible medium. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the electrical contact of Williams with a second interface that prevents the flexible medium from being bent toward the center of the electrical contact, as taught by Hosler, to protect the flexible medium.

Applicant respectfully traverses this rejection. As previously noted and acknowledged by the Examiner, Williams does not disclose a structure that prevents the flexible contact medium from being bent toward the center. The present invention accomplishes this both by use of a taper and by the use of a front end that prevents the inward bending of the contact. This is a structural difference between Williams *et al.* and the present invention.

Applicant respectfully traverses this portion of the rejection. All that has been said above regarding Williams *et al.* is applicable here. Hosler, as understood, is a multi-piece adaptor, which is matable with, and unmatable from, opposing triaxial connectors with which it interconnects. As shown in Hosler, Fig. 3, right end, the outer diameter of rearward leading ends 112 abut the inner diameter of dielectric sleeve 130. Although reduced diameter collar 138 is not numbered in Fig. 3, reference to Fig. 5 clearly shows that the inner diameter of sleeve 130 against which leading edge 112 abuts is in fact collar 138. Thus, Hoster does not teach that the collar prevents damage by bending to the flexible member. Thus, unlike the present invention,

Hosler does not prevent the flexible medium from being bent toward the center pin, as the mating connector may enter between collar 138 and leading edge 112, and so this teaching is absent in Hosler. Applicant submits that the combination of the connector of Williams *et al.* with Hostler is not proper as there is no teaching or suggestion to combine the electrical connector of Williams *et al.* with Hostler to achieve applicant's invention. Applicant respectfully submits that even if the combination suggested by the Examiner, one would not obtain applicant's invention, as the collar of Hostler when applied to Williams *et al.* would allow the bending of the flexible connector inward, as discussed above, which is not applicant's invention. Since Williams et al. teaches a gap, as discussed, the collar alone does not prevent the inward bending from potentially causing contact with the center pin, Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention, where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *See* MPEP §2143.01. The fact the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish prima facie obviousness. *See* MPEP §2143.01. Also, the fact that references can be combined or modified is not sufficient to establish prima facie obviousness. Certainly, there is no motivation in Williams *et al.* to look to Hosler for a solution to the problem of inward bending on an intermediate contact, as Williams et al. does not recognize this problem. Indeed, Williams does not recognize the problem of the inward bending of the intermediate connector, as it is directed to solving the problem at the rear end of the connector between cylindrical conductors 40 and the radially inward extending lip with notches. Furthermore, it is not clear how one can take the simple reduced diameter collar 138 taught by Hosler, which is part of a subassembly of forward second sleeve 130, which is used in conjunction with rearward second sleeve. It is improper for an examiner to pick and choose among the references to obtain applicant's invention. When evaluating the scope of a claim, every limitation in the claim must be considered. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered. Thus, whereas applicant's claims are directed to structure that prevents the flexible contact medium from being bent inwardly, the cited art does not teach or suggest such a flexible contact medium.

Additionally, the prior art must be considered in its entirety. Thus, it is inappropriate to choose only the features that support the Examiner's position, while ignoring those features that do not support it. *See* MPEP §2141.02.

Based on the above, applicant requests withdrawal of the rejection of claims 1-14 based on 35 U.S.C. §112 and claims 1-8, 10-32 and 40-43 under 35 U.S.C. §103(a) over Williams *et al.* in view of Hosler, Sr. either alone or in combination. Applicant also requests the withdrawal of objections to claims 1, 15, 20-22, 31 and 40.

CONCLUSION

Applicants respectfully request the entry of this amendment and the withdrawal of the rejection of claims 1-8, 10-32 and 40-43 and, withdrawal of the objection to claims 1-14 and allowance of claims 1-8, 10-32 and 40-43. Applicants request withdrawal of all objections and rejections to the claims, entry of this response and expeditious allowance of the claims and the application. Applicants respectfully submit that claims 1-8, 10-32 and 40-43 include allowable subject matter.

If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the undersigned.

The Commissioner if hereby authorized to charge indicated fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,

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